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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,765

02/16/2005

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EXAMINER

LIU, SUE XU

ART UNIT

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1639

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,765	<b>Applicant(s)</b> PLESCH ET AL.	
	<b>Examiner</b> SUE LIU	<b>Art Unit</b> 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-17 and 19-30 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Claim Status***

1. Claim 18 has been canceled as filed on 8/18/06.

Claims 1-17 and 19-30 are currently pending.

### ***Election/Restrictions***

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-8, drawn to a method for identifying herbicidally active substances using a nucleic acid.

Group 2, claim(s) 9, 13, 14, 15(in part drawn to a microorganism), 16(in part drawn to a microorganism) and 30, drawn to a nucleic acid construct comprising a nucleic acid sequence.

Group 3, claim(s) 10, 27(in part) and 29, drawn to a substance with a certain properties.

Group 4, claim(s) 11 (in part), 12 and 27(in part), drawn to a proteinogenic substance.

Group 5, claim(s) 11 (in part) and 27(in part), drawn to an antisense RNA.

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Group 6, claim(s) 15-16(in part) and 17, drawn to a transgenic plant.

Group 7, claim(s) 15-16(in part), drawn to a transgenic nonhuman animal.

Group 8, claim(s) 19 and 20, drawn to a method of identifying an antagonist of a protein encoded by a nucleic acid.

Group 9, claim(s) 21, drawn to a method of controlling undesired vegetation using a substance.

Group 10, claim(s) 22, drawn to a method of regulating the growth of a plant using a protein antagonist.

Group 11, claim(s) 23 and 24, drawn to a method for generating modified gene products encoded by a nucleic acid sequence.

Group 12, claim(s) 25, drawn to a method of generating transgenic plant.

Group 13, claim(s) 26, drawn to an organism comprising a modified gene product.

Group 14, claim(s) 28, drawn to a composition comprising a growth regulating amount of at least one antagonist.

***Further Group Restriction (Note: This is not a species selection.)***

The inventions listed as Groups 1, 2, 6-8 and 11-13 (above) are subjected to further restrictions as set forth below:

A.) Applicants are further requested to select a single specific DNA sequence identified by its corresponding SEQ ID NO. (e.g. SEQ ID No. 1).

(As the result of the “further group restriction”, each one of the Groups 1, 2, 6-8 and 11-13 are further restricted into subgroups. Each one of the subgroup would result in one invention drawn to a single SEQ ID NO.)

The “Further Restrictions” are deemed proper since each one of the restrictions would result in an amino acid sequence (encoded by the elected nucleic acid) or a nucleic acid sequence that possesses distinct function and/or structures. The different nucleic acids would not share the same structure (such the same nucleic acid sequence), and would also have different properties (such as encoding for different proteins) and therefore different functions. These different polynucleotides comprise nucleic acids for various distinct genes, which have different sequences and functions. For example, the nucleic acid listed as SEQ ID NO:1 and SEQ ID NO:3 have different nucleic acid sequences and lengths (one with 1230 nts and the other with 4146 nts). An alignment between the two sequences (SEQ ID NO:1 and 3) also produced “no significant similarity” using the BLAST alignment program. These different genes do not share a common core structure and/or function, and thus do not share a single general inventive concept. Therefore, these different nucleic acids lack unity of invention. See MPEP 803.04, MPEP 1850 XIII as well as the Pre-OG Notice (published 3/27/07; signed 2/22/07) rescinding the “partial waiver” for restriction practice regarding sequences.

3. The inventions listed as Groups 1-14 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Each group of invention has a different technical feature. For examples, the technical feature for the Group 1 invention is a screening method for a substance that reduces or blocks a gene product; the technical feature of Group 2 is a nucleic construct; the technical feature of Group 3 is a substance; etc. Therefore, Groups 1-14 are not so linked by the same or a corresponding special technical feature as to form a single inventive concept.

In addition, the special technical feature of Group 1 is known in the prior art. Levin et al (US 6,387,637; 5/14/2002) teach methods of identifying substances that can inhibit activity of various genes (e.g. cols. 3-4). The reference also teaches various genes isolated from “*Arabidopsis thaliana*”, which the genes (such as the one with SEQ ID NO:1) read on the nucleic acids of the instant claim 1 because the sequences of the SEQ ID NOs of the instant claims recite nucleic acid sequences from *Arabidopsis thaliana* (see the Sequence Listing and Spec. p.10). In addition, the nucleic acid sequence of SEQ ID NO1 is known in the art. For example, the nucleic acid sequence as depicted in SEQ ID NO1 of the instant claim 1 is disclosed in GenBank with accession number NM\_115579 (GenBank accession number NM\_115579, published on 1/10/2002; downloaded from NCBI website on 2/28/08).

Therefore, the inventions lack unity as demonstrated by showing the common technical feature(s) does not “define a contribution over the prior art” “*a posterior*”. See MPEP 1850. Thus, the inventions lack unity.

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4. Applicant is advised that the reply to this requirement to be complete must include (i) **an election of a species or invention to be examined even though the requirement be traversed** (37 CFR 1.143) and (ii) **identification of the claims encompassing the elected invention**.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102,

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103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See “Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b),” 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Liu whose telephone number is 571-272-5539. The examiner can normally be reached on M-F 9am-3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Schultz can be reached at 571-272-0763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sue Liu/  
Patent Examiner, AU 1639  
2/28/08